

REMARKS

This Amendment is in response to the Office Action of May 28, 2003, in which the Examiner made certain technical objections to the specification and claims.

With respect to the objection to the specification, Applicant has provided a reference to the related PCT application.

The specification has been amended at page 9 to recite that there is also a magnetic support. This feature is set forth in the specification at page 22 lines 7, 13, 16, and 17. Thus the change does not introduce new matter and the entry thereof is earnestly solicited.

With respect to the objection to the claims, the direction of the laminated of the silicon sheets have been more clearly recited.

The antecedent basis for the ratio Sb/Sa has been provided in claim 10.

The Examiner rejected claims 1-7 as unpatentable over Fig. 12a of Sakurai et al. '544, in view of Sakurai et al.

The Examiner rejected certain claims over Sakurai et al. in view of Laskaris et al. '880 or Miyamoto et al. '966.

The Examiner's rejection of the claims is respectively traversed for the reasons set forth below.

The claims have been amended. In particular, claim 1 has been cancelled without prejudice, and has been rewritten as new claim 12. The new claim clarifies the arrangement as an assembly of a yoke for supporting the permanent magnets, one end of each permanent magnet being disposed facing the air gap and being directly attached to the pole pieces. In the invention, the main component forming the pole piece is laminated. In Sakurai et al., the major component is a bulk soft iron member. The art cited by the Examiner does not disclose the claimed arrangement employing a permanent magnet field generating structure with the main component directly attached to the permanent magnet and wherein the main component is formed of sheets laminated a direction facing the pole pieces.

The Sakura et al. reference shows the magnetic pole members disposed atop the bulk soft iron magnetic base material. The laminated pole members may be laminated either parallel to or transverse to the air gap (Figs. 1a , 2, 3A and 4.) The present invention employs a laminated main component (41), which is laminated in the direction parallel to the air gap and the tiered protrusion (44) forming the pole face is disposed atop the support.

The laminations of Miyamoto et al. are perpendicular to the direction of the

laminations of the invention, and thus, are not instructive or suggestive of the arrangements of the present invention.

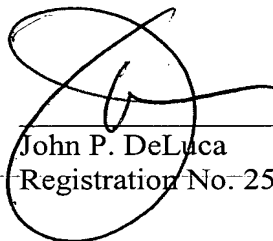
The support member recited in claims 2 and 4 are secured to the peripheral portion of the main component. In particular, the support member secures the laminated blocks on the main component together. In order to achieve this purpose, the material of the support member must provide structural support. The material forming the support member may be any appropriate material. Indeed, the material may be either magnetic or non-magnetic. That is both materials are useful. However, in order to obtain a reduction in eddy currents and residual magnetism, it is preferable to employ a non-magnetic material with high electrical resistance as set forth in claim 2, and in particular a non-metal as recited in claim 3. On the other hand, if it becomes necessary or desirable to employ a magnetic material for the support member, such material may be used if it is divided into sections as set forth in claim 4 in order to reduce currents and magnetism. In this way, it is possible according to the invention to achieve reduced eddy currents and residual magnetism using either magnetic or non-magnetic materials. In the case of magnetic materials, the support is divided or segmented to reduce currents and magnetism; and in the case of non-magnetic material, currents and residual magnetism are eliminated by the nature of the material.

In view of the foregoing, it is respectfully requested that the Examiner reconsider his rejection of the claims, the allowance of which is earnestly solicited

If the filing of this response requires an additional fee, the Commissioner is authorized to charge Deposit Account 04-2223 or credit any overpayment thereto.

Respectfully submitted,

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